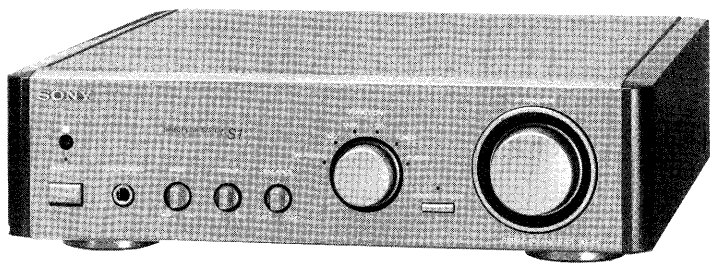
TAE-S1

SERVICE MANUAL

AEP Model
UK Model
Singapore Model
Tourist Model



TAE-S1 is the stereo preamplifier section in SHC-S1.

SPECIFICATIONS

Amplifier selection

Total harmonic distortion
0.005% at rated 1 kHz output
Frequency response
PHONO MM (10 Hz - 15 kHz): RIAA equalization curve ±1 dB
TUNER, CD, TAPE, MD, DAT/VIDEO, ADAPTOR IN: 10 Hz - 100 kHz +3dB
Input sensitivity
PHONO: 2.5 mV, 50 kilohms
TUNER, CD, TAPE, MD, DAT/VIDEO, ADAPTOR IN: 150mV, 50 kilohms
S/N (network)
PHONO: 85 dB(A) (SOURCE DIRECT ON)
CD: 105 dB(A) (SOURCE DIRECT ON)
Output voltage impedance
TAPE, MD, DAT/VIDEO, ADAPTOR: 150 mV, 1 kilohms
OUTPUT:1.5 V, 47 ohms
HEADPHONES: 10 milliwatts at 8 ohms, Accepts low and high impedance headphones.
Tone controls
BASS: ±7 dB at 100 Hz
TREBLE: ±6 dB at 10 kHz
Muting
-60 dB

General

Power requirements
AEP, UK, German, Italian Model :
220 - 230 V AC, 50/60 Hz
Singapore, Tourist Model :
110 - 120 V, 220 - 240 V AC, adjustable, 50/60 Hz
Mains
3 switched, total 175 W max.
Dimensions
Approx. 310 × 90 × 360 mm (12 1/4 × 3 5/8 × 14 1/4 inches) (w/h/d)
Mass
Approx. 3.2 kg (7 lb 1 oz)
Supplied accessories
Remote commander RM-S1 (1)
Sony SUM-3 (NS) (2)
Audio bus cable (for connecting components) (1)

Design and specifications are subject to change without notice.

STEREO PREAMPLIFIER

SONY®

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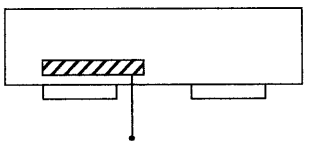
MODEL IDENTIFICATION

— BACK PANEL—



AEP/German/Italian model : 4-967-151-1□
UK model : 4-967-151-3□
Singapore/Tourist model : 4-967-151-2□

SAFETY-RELATED COMPONENT WARNING !!

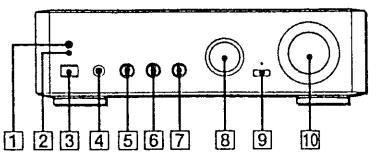
COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1
GENERAL

This section is extracted from instruction manual.

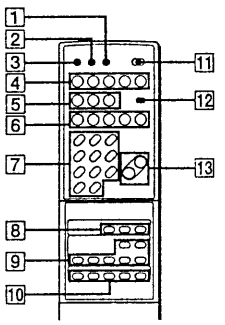
Index to Parts and Controls

Front Panel



1 Remote sensor
2 ON/STANDBY indicator (7)
3 POWER switch (7)
4 HEADPHONES jack (7)
5 BASS control (7)
6 TREBLE control (7)
7 BALANCE control (7)
8 FUNCTION control (7)
9 SOURCE DIRECT control (7)
10 ATTENUATOR control (7)

Remote Commander

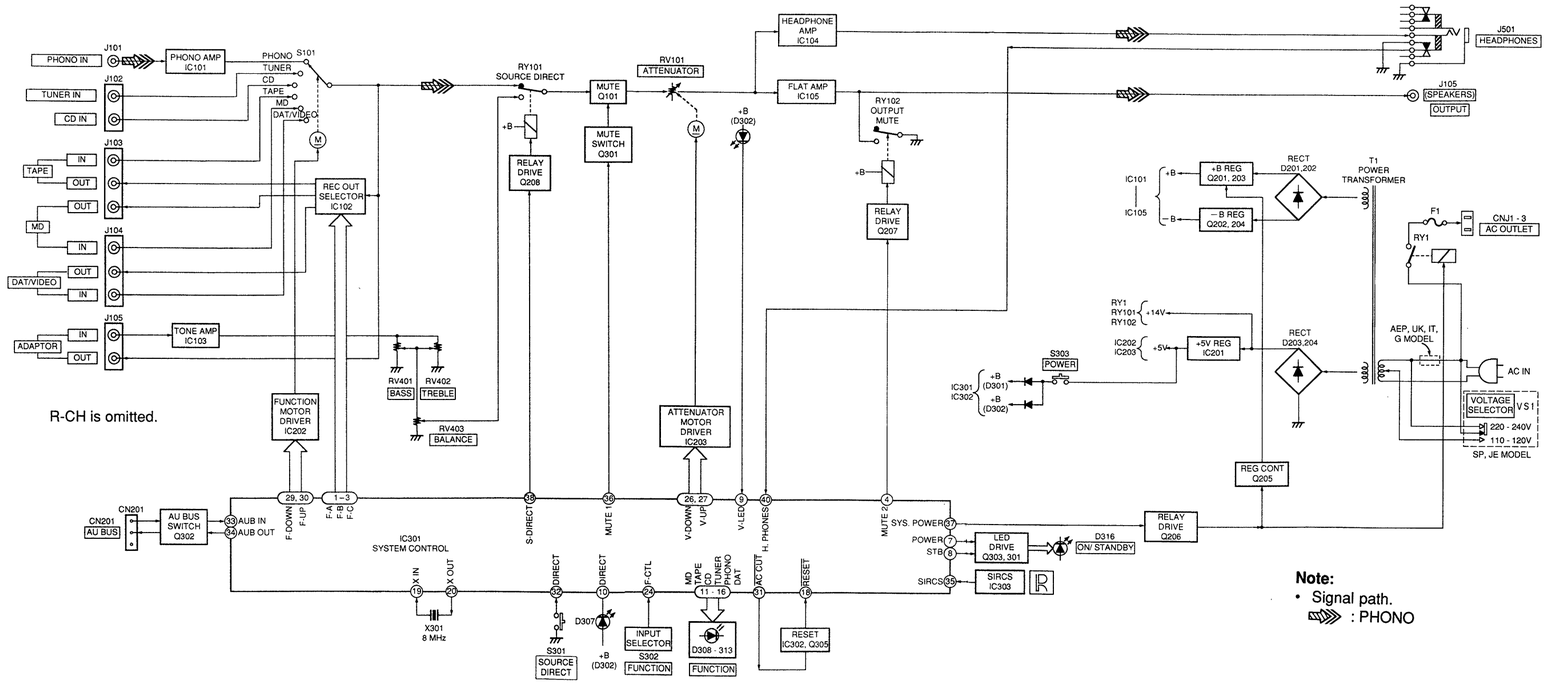


1 MUTING button (7)
2 SOURCE DIRECT button
3 FUNCTION button
Each time you press FUNCTION, the function changes as follows:
DAT/VIDEO → MD → TAPE → CD → TUNER → PHONO →...
4 Cassette deck operating buttons
◁ (reverse side play)
▷ (upper side play)
■ (stop)
◀◀/▶▶ fast leftward / rightward) (AMS*)
5 Tuner operating buttons
SHIFT: Each time you press SHIFT, the letter (A - C) changes as follows:
A → B → C →...
PRESET –/+: Press - or + to select the number (0 - 9).
6 CD operating buttons
▷ (play)
II (pause)
■ (stop)
I◀◀ /▶▶I (AMS*)
7 Tuner/CD numeric buttons
8 Tape control buttons
● REC (recording)
○ REC MUTE (recording mute)
II (pause)
9 CD control buttons
CHECK: Press the button to check the programme.
CLEAR: Press the button to erase a specific track.
CONTINUE: Press the button to play tracks continuously.
SHUFFLE: Press the button to play tracks in random order.
PROGRAM: Press the button to play tracks in the desired order.
REPEAT: Press the button to play tracks repeatedly.
TIME: Press the button to change the time to be displayed.
10 MD control buttons
▷ (play)
II (pause)
■ (stop)
I◀◀ /▶▶I (AMS*)
11 SYSTEM POWER switch (8)
12 TUNER/CD switch
13 ATTENUATOR +/– buttons

*AMS: Automatic Music Sensor

SECTION 2
DIAGRAMS

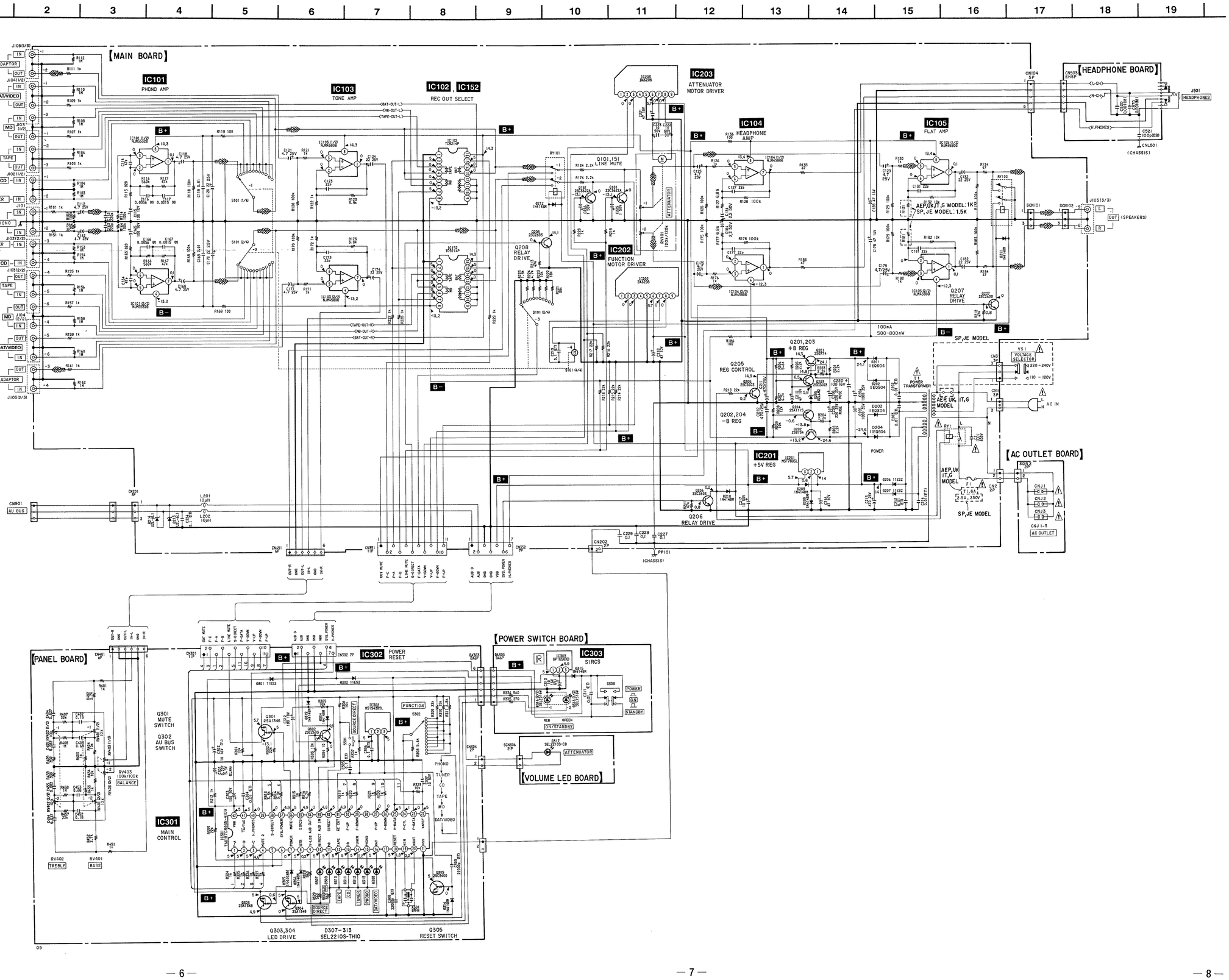
2-1. BLOCK DIAGRAM



Note:
- Signal path.
  : PHONO

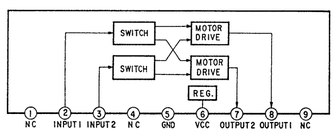
2-2. SCHEMATIC DIAGRAM

• See page 14 for IC Pin Function. (IC301)



• IC Block Diagram

IC202, 203 BA6208



Note:

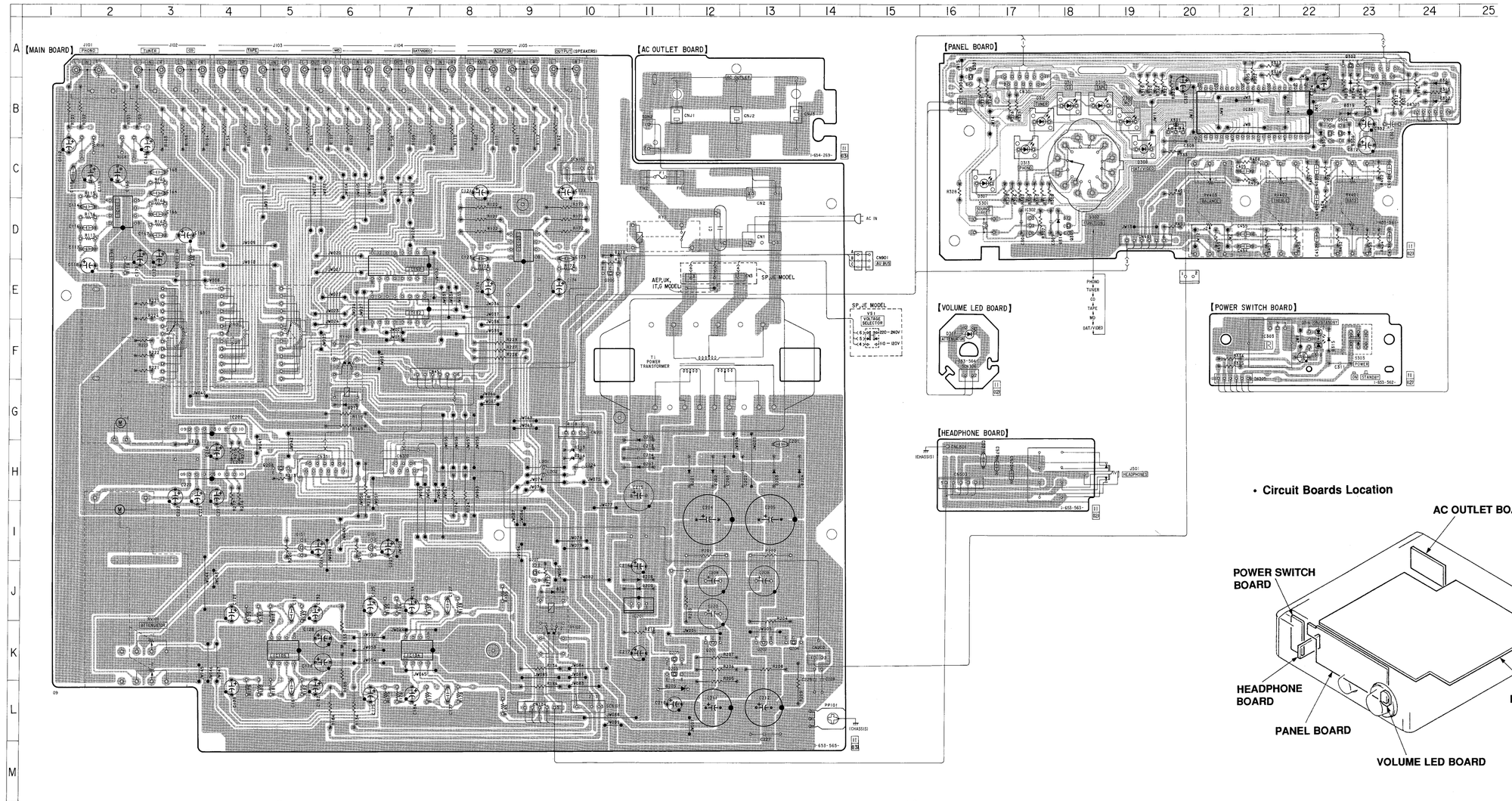
- All capacitors are in µF unless otherwise noted. pF:µµF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/3W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

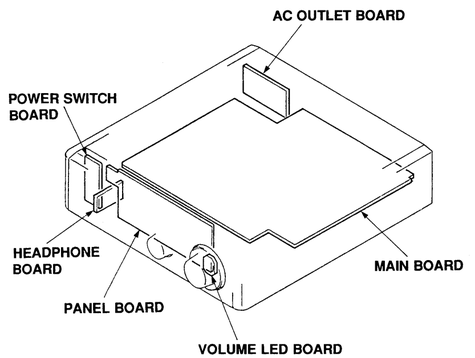
- **B+** : B+ Line
- **B−** : B− Line
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⋙ : PHONO
- Abbreviation
  G : German model.
  IT : Italian model.
  SP : Singapore model.
  JE : Tourist model.

2-3. PRINTED WIRING BOARDS

- See page 12 for Circuit Boards Location.
- See page 13 for Semiconductor Lead Layouts.



• Circuit Boards Location



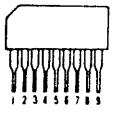
• Semiconductor Location

Ref. No.	Location
D201	H-12
D202	H-12
D203	H-13
D204	H-14
D205	L-11
D206	H-11
D207	H-11
D208	J-11
D209	J-11
D210	D-11
D211	J-10
D212	G-6
D213	H-10
D214	H-10
D301	B-24
D302	B-24
D304	B-23
D305	C-22
D306	C-23
D307	C-17
D308	C-19
D309	B-19
D310	B-19
D311	B-18
D312	B-18
D313	C-17
D314	D-18
D315	F-22
D316	F-22
D317	F-16
D319	B-23
IC101	D-2
IC102	E-7
IC103	D-9
IC104	K-7
IC105	K-5
IC152	E-7
IC201	J-11
IC202	G-4
IC203	H-4
IC301	B-21
IC302	D-17
IC303	F-21
Q101	I-6
Q151	I-5
Q201	K-12
Q202	K-13
Q203	K-11
Q204	K-13
Q205	K-11
Q206	E-10
Q207	J-9
Q208	H-5
Q301	A-17
Q302	A-23
Q303	B-22
Q304	B-23
Q305	D-18

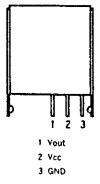
Note:
- o—— : parts extracted from the component side.
- △ : internal component.
- ▒▒ : Pattern from the side which enable seeing.
- Abbreviation
  - G : German model.
  - IT : Italian model.
  - SP : Singapore model.
  - JE : Tourist model.

2-4. SEMICONDUCTOR LEAD LAYOUTS

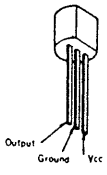
BA6208



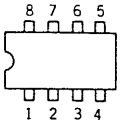
GP1U50XB



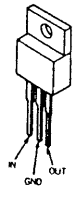
M51943BSL



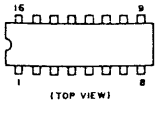
NJM4580D-D
RC5532DD



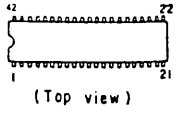
TA7805S



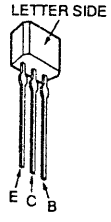
TC9214P



TMP87C846N-4109

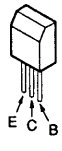


DTA114ES
DTA124ES
DTC124ES
2SA1175-HFE
2SC2603-EF

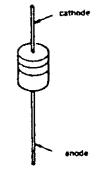


2SC3622A-LK

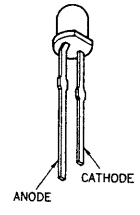
2SB734-34
2SD774-34



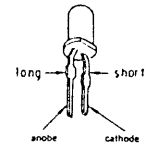
HZS6A1L
UZL-6M2
11EQS04
11ES2



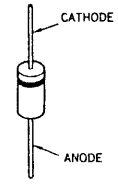
SEL1516W



SEL2210S-CD
SEL2210S-TH10



1N4148M



2-5. IC PIN FUNCTION

- **IC301 MAIN CONTROLLER (TMP87C846N-4109)**

Pin No.	Pin Name	I/O	Function
1	F-A	O	Output control A terminal, normal: "L".
2	F-B	O	Output control B terminal, normal: "L".
3	F-C	O	Output control C terminal, normal: "L".
4	MUTE 2	O	Output mute control terminal, normal: "L".
5	GND	–	GND terminal.
6	GND	–	GND terminal.
7	POWER	O	Power LED drive signal. (ON: L)
8	STB	O	Standby LED drive signal. (ON: L)
9	V-LED	O	Attenuator volume LED drive signal. (ON: L)
10	DIRECT	O	Source direct LED drive signal. (ON: L)
11	MD	O	Function LED drive signal. (ON: L)
12	TAPE	O	Function LED drive signal. (ON: L)
13	CD	O	Function LED drive signal. (ON: L)
14	TUNER	O	Function LED drive signal. (ON: L)
15	PHONO	O	Function LED drive signal. (ON: L)
16	DAT	O	Function LED drive signal. (ON: L)
17	TEST	I	GND terminal.
18	$\overline{\text{RESET}}$	I/O	Reset signal. (Reset: L)
19	XIN	I	Clock signal input terminal.
20	XOUT	O	Clock signal output terminal.
21	Vss	–	GND terminal.
22	VAREF	I	A/D conversion power supply terminal.
23	F-DATA	I	Position data of function switch.
24	F-CTL	I	Position data of input selector switch.
25	V-DATA	–	Power supply terminal.
26	V-DOWN	O	Attenuator volume down control signal, normal: "L".
27	V-UP	O	Attenuator volume up control signal, normal: "L".
28	–	–	Not used. (Open)
29	F-DOWN	O	Function volume down control signal, normal: "L".
30	F-UP	O	Function volume up control signal, normal: "L".
31	$\overline{\text{AC CUT}}$	I	AC cut signal. (Active: L)
32	DIRECT	I	Source direct key input terminal. (Active: L)
33	AUB IN	I	AU BUS signal input terminal, normal: "H".
34	AUB OUT	O	AU BUS signal output terminal, normal: "L".
35	SIRCS	I	SIRCS signal input terminal, normal: "H".
36	MUTE 1	O	Line mute control signal. (Active: L)
37	SYS.POWER	O	System power supply control signal. (Active: H)
38	S-DIRECT	O	Source direct control signal. (Active: H)
39	–	–	Not used. (GND)
40	H.PHONES	I	Headphones signal input terminal. (Active: H)
41	$\overline{\text{TA}}$/TAE	I	TA/TAE select signal input terminal.
42	V_{DD}	–	Power supply (+5V) terminal.

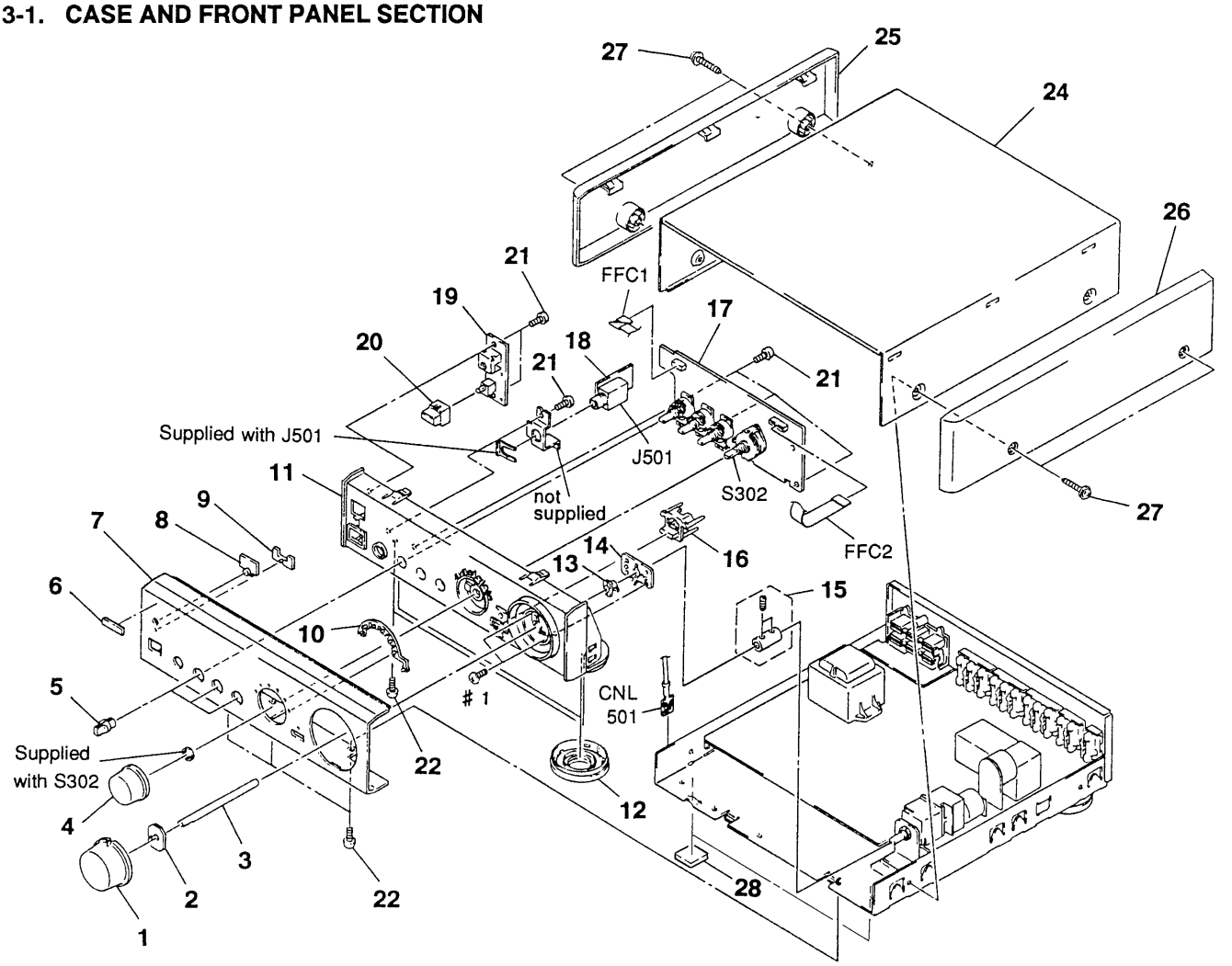
SECTION 3
EXPLODED VIEWS

NOTE:

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Color Indication of Appearance Parts Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts color Cabinet's color
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
  G : German model
  IT : Italian model
  SP : Singapore model
  JE : Tourist model

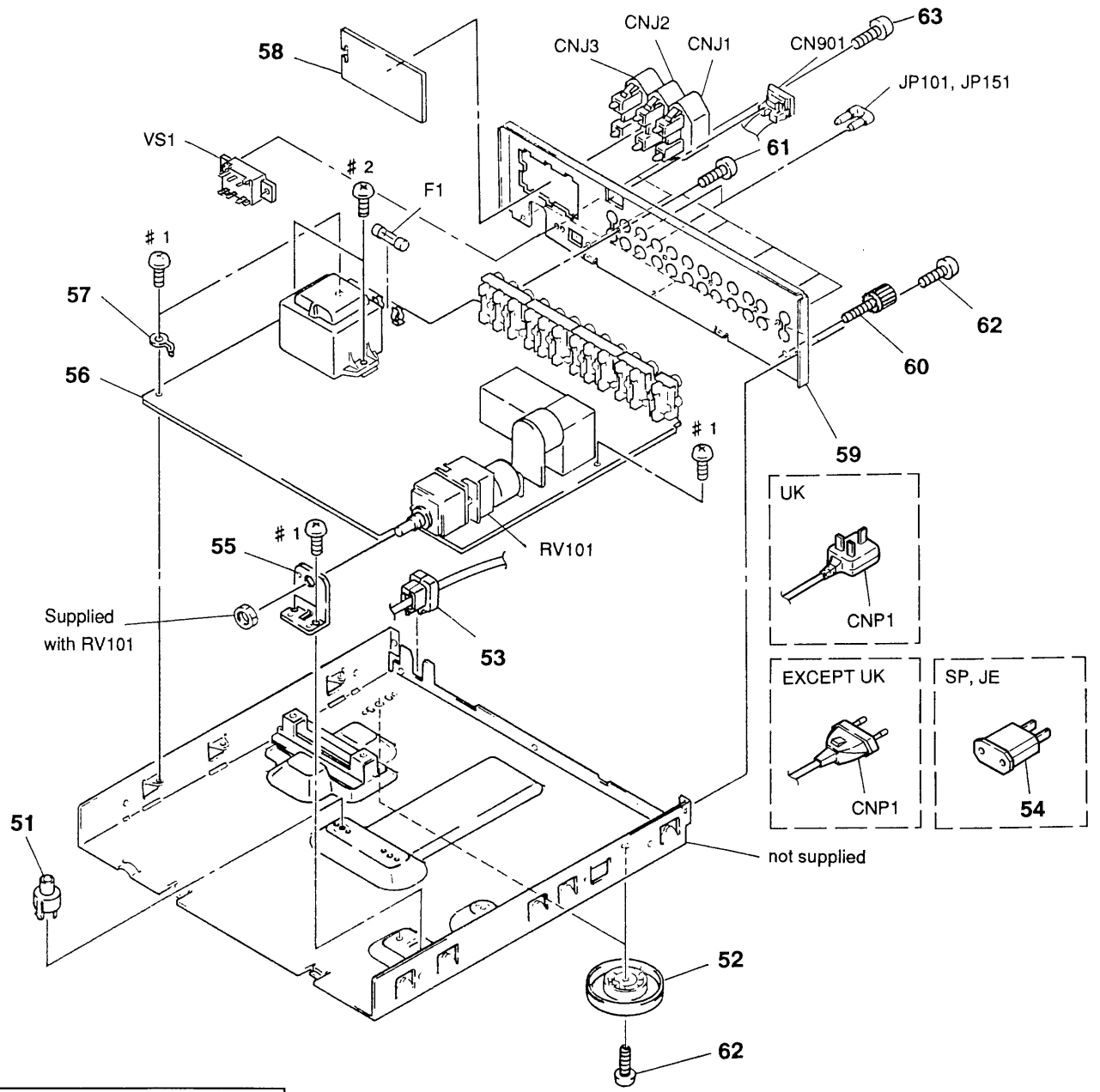
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

3-1. CASE AND FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	X-4945-130-1	KNOB (DIA. 43) ASSY (VOLUME)	
* 2	1-653-564-11	VOLUME LED BOARD	
* 3	4-968-086-01	SHAFT, JOINT	
4	X-4945-131-1	KNOB (DIA. 31) ASSY (FUNCTION)	
5	4-968-107-01	KNOB (DIA. 13)	
6	4-969-961-11	EMBLEM (NO. 4), SONY	
7	4-968-087-11	PANEL, FRONT	
8	4-968-092-01	FILTER	
9	4-968-091-01	INDICATOR (PO)	
10	4-968-090-01	INDICATOR (FU)	
11	X-4945-344-1	BASE ASSY, PANEL	
12	X-4945-079-1	RING ASSY, FOOT	
* 13	4-945-610-01	BEARING, VOL	
* 14	4-968-084-01	BRACKET (BEARING)	
* 15	4-946-330-01	JOINT	
16	4-968-089-01	BUTTON (1)(SOURCE DIRECT)	
* 17	A-4371-622-A	PANEL BOARD, COMPLETE	
* 18	1-653-563-11	HEADPHONE BOARD	
* 19	1-653-562-11	POWER SWITCH BOARD	
20	4-968-098-01	BUTTON (P)	
21	4-951-620-01	SCREW (2.6X8), +BVTP	
22	3-704-515-21	SCREW (BV/RING)	
24	4-967-150-31	CASE	
25	X-4945-476-1	PANEL (L) ASSY, SIDE	
26	X-4945-477-1	PANEL (R) ASSY, SIDE	
27	4-969-954-01	SCREW (SIDE PANEL)	
* 28	3-342-416-01	SHEET (F), INSLATING	
CNL501	1-690-880-31	LEAD (WITH CONNECTOR)	
FFC1	1-575-904-31	WIRE, FLAT TYPE (7 CORE)	
FFC2	1-590-575-11	WIRE, FLAT TYPE (11 CORE)	

3-2. CHASSIS SECTION



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
* 51	4-968-100-01	SUPPORT, PC	
52	X-4945-129-1	FOOT ASSY	
* 53	3-703-244-00	BUSHING (2104), CORD	
54	1-569-008-11	ADAPTOR, CONVERSION 2P (SP, JE)	
* 55	4-968-085-01	BRACKET (VO)	
* 56	A-4377-195-A	MAIN BOARD, COMPLETE (SP, JE)	
* 56	A-4371-626-A	MAIN BOARD, COMPLETE (AEP, UK, IT, G)	
57	1-537-770-21	TERMINAL BOARD, GROUND	
* 58	1-654-269-11	AC OUTLET BOARD	
* 59	4-967-151-12	PANEL, BACK (AEP, IT, G)	
* 59	4-967-151-21	PANEL, BACK (SP, JE)	
* 59	4-967-151-31	PANEL, BACK (UK)	
60	4-947-010-01	SCREW, FEEDER FIXED	
61	3-704-515-41	SCREW (BV/RING)	
62	3-704-515-21	SCREW (BV/RING)	

Ref. No.	Part No.	Description	Remark
63	4-951-620-31	SCREW (2.6), +BVTP (SP, JE)	
⚠CNJ1	1-526-794-11	OUTLET, AC	
⚠CNJ2	1-526-794-11	OUTLET, AC	
⚠CNJ3	1-526-794-11	OUTLET, AC	
CN901	1-769-095-11	CORD (WITH CONNECTOR) (AU BUS)	
⚠CNP1	1-575-651-21	CORD, POWER (EXCEPT UK)	
⚠CNP1	1-696-571-11	CORD, POWER (UK)	
⚠F1	1-532-259-00	FUSE, TIME LAG (T1.6A) (AEP, UK, IT, G)	
⚠F1	1-532-286-00	FUSE (2.5A, 250V) (SP, JE)	
JP101	1-535-706-11	PLUG, JUMPER	
JP151	1-535-706-11	PLUG, JUMPER	
⚠VS1	1-570-046-21	SWITCH, VOLTAGE CHANGE (VOLTAGE SELECTOR) (SP, JE)	

AC OUTLET

HEADPHONE **MAIN**

SECTION 4
ELECTRICAL PARTS LIST

NOTE:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ Parts color ↑ Cabinet's color
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- SEMICONDUCTORS
  In each case, u: μ , for example:
  uA...: μA..., uPA...: μPA..., uPB...: μPB..., uPC...: μPC..., uPD...: μPD...
- CAPACITORS
  uF : μF
- COILS
  uH : μH
- Abbreviation
  G : German model
  IT : Italian model
  SP : Singapore model
  JE : Tourist model

Ref. No.	Part No.	Description			Remark
*	1-654-269-11	AC OUTLET BOARD			
		**********			
		< CONNECTOR >			
⚠CNJ1	1-526-794-11	OUTLET, AC (AC OUTLET)			
⚠CNJ2	1-526-794-11	OUTLET, AC (AC OUTLET)			
⚠CNJ3	1-526-794-11	OUTLET, AC (AC OUTLET)			
**********					
*	1-653-563-11	HEADPHONE BOARD			
		**********			
		< CAPACITOR >			
C520	1-106-343-00	MYLAR	1000PF	5%	200V
C521	1-164-070-11	CERAMIC	100PF	5%	50V
C570	1-106-343-00	MYLAR	1000PF	5%	200V
		< CONNECTOR >			
* CN503	1-564-508-11	PLUG, CONNECTOR 5P			
* CNL501	1-690-880-31	LEAD (WITH CONNECTOR)			
		< JACK >			
J501	1-507-854-21	JACK, LARGE TYPE (HEADPHONES)			
**********					
*	A-4371-626-A	MAIN BOARD, COMPLETE (AEP, UK, IT, G)			
		**********			
*	A-4377-195-A	MAIN BOARD, COMPLETE (SP, JE)			
		**********			
		< CAPACITOR >			
⚠C1	1-161-744-51	CERAMIC	0.01uF		400V
C112	1-124-927-11	ELECT	4.7uF	20%	100V
C113	1-164-077-11	CERAMIC	220PF	10%	50V
C114	1-164-062-11	CERAMIC	47PF	5%	50V
C115	1-126-101-11	ELECT	100uF	20%	16V
C116	1-130-480-00	MYLAR	0.0056uF	5%	50V
C117	1-106-347-00	MYLAR	1500PF	5%	200V
C118	1-124-927-11	ELECT	4.7uF	20%	100V
C119	1-136-153-00	FILM	0.01uF	5%	50V

Ref. No.	Part No.	Description			Remark
C120	1-126-233-11	ELECT	22uF	20%	50V
C121	1-124-927-11	ELECT	4.7uF	20%	100V
C123	1-164-054-11	CERAMIC	22PF	5%	50V
C124	1-126-233-11	ELECT	22uF	20%	50V
C125	1-124-927-11	ELECT	4.7uF	20%	100V
C127	1-164-054-11	CERAMIC	22PF	5%	50V
C128	1-124-910-11	ELECT	47uF	20%	50V
C129	1-124-927-11	ELECT	4.7uF	20%	100V
C131	1-164-054-11	CERAMIC	22PF	5%	50V
C132	1-126-233-11	ELECT	22uF	20%	50V
C134	1-126-161-11	ELECT	2.2uF	20%	50V
C162	1-124-927-11	ELECT	4.7uF	20%	100V
C163	1-164-077-11	CERAMIC	220PF	10%	50V
C164	1-164-062-11	CERAMIC	47PF	5%	50V
C165	1-126-101-11	ELECT	100uF	20%	16V
C166	1-130-480-00	MYLAR	0.0056uF	5%	50V
C167	1-106-347-00	MYLAR	1500PF	5%	200V
C168	1-124-927-11	ELECT	4.7uF	20%	100V
C169	1-136-153-00	FILM	0.01uF	5%	50V
C170	1-126-233-11	ELECT	22uF	20%	50V
C171	1-124-927-11	ELECT	4.7uF	20%	100V
C173	1-164-054-11	CERAMIC	22PF	5%	50V
C174	1-126-233-11	ELECT	22uF	20%	50V
C175	1-124-927-11	ELECT	4.7uF	20%	100V
C177	1-164-054-11	CERAMIC	22PF	5%	50V
C178	1-124-910-11	ELECT	47uF	20%	50V
C179	1-124-927-11	ELECT	4.7uF	20%	100V
C181	1-164-054-11	CERAMIC	22PF	5%	50V
C182	1-126-233-11	ELECT	22uF	20%	50V
C184	1-126-161-11	ELECT	2.2uF	20%	50V
C202	1-161-379-00	CERAMIC	0.01uF	20%	25V
C203	1-161-379-00	CERAMIC	0.01uF	20%	25V
C204	1-126-105-11	ELECT	1000uF	20%	35V
C205	1-126-105-11	ELECT	1000uF	20%	35V
C208	1-124-911-11	ELECT	220uF	20%	50V
C209	1-124-911-11	ELECT	220uF	20%	50V
C210	1-123-306-00	ELECT	47uF	20%	10V
C211	1-124-913-11	ELECT	470uF	20%	50V
C212	1-124-913-11	ELECT	470uF	20%	50V
C213	1-161-379-00	CERAMIC	0.01uF	20%	25V
C214	1-161-379-00	CERAMIC	0.01uF	20%	25V

Ref. No.	Part No.	Description				Remark
C215	1-126-376-11	ELECT	470uF	20%	25V	
C216	1-123-306-00	ELECT	47uF	20%	10V	
C217	1-126-059-11	ELECT	10uF	20%	50V	
C218	1-123-306-00	ELECT	47uF	20%	10V	
C219	1-164-159-11	CERAMIC	0.1uF		50V	
C220	1-124-122-11	ELECT	100uF	20%	50V	
C221	1-123-306-00	ELECT	47uF	20%	10V	
C222	1-126-059-11	ELECT	10uF	20%	50V	
C223	1-126-059-11	ELECT	10uF	20%	50V	
C224	1-164-159-11	CERAMIC	0.1uF		50V	
C225	1-126-301-11	ELECT	1uF	20%	50V	
C226	1-126-301-11	ELECT	1uF	20%	50V	
C227	1-164-159-11	CERAMIC	0.1uF		50V	
C228	1-164-159-11	CERAMIC	0.1uF		50V	
C229	1-164-159-11	CERAMIC	0.1uF		50V	
		< CONNECTOR >				
CN1	1-580-230-11	PIN, CONNECTOR (PC BOARD) 3P				
CN2	1-564-321-00	PIN, CONNECTOR 2P				
* CN3	1-564-687-11	PIN, CONNECTOR 3P (SP, JE)				
* CN104	1-564-508-11	PLUG, CONNECTOR 5P				
CN201	1-764-326-11	PIN, CONNECTOR (PCB) (V TYPE) 3P				
CN202	1-564-505-21	PLUG, CONNECTOR 2P				
* CN351	1-568-830-11	SOCKET, CONNECTOR 11P				
* CN352	1-568-826-11	SOCKET, CONNECTOR 7P				
* CN451	1-564-509-11	PLUG, CONNECTOR 6P				
		< DIODE >				
D201	8-719-210-21	DIODE	11EQS04			
D202	8-719-210-21	DIODE	11EQS04			
D203	8-719-210-21	DIODE	11EQS04			
D204	8-719-210-21	DIODE	11EQS04			
D205	8-719-000-60	DIODE	UZL-6M2			
D206	8-719-200-82	DIODE	11ES2			
D207	8-719-200-82	DIODE	11ES2			
D208	8-719-987-63	DIODE	1N4148M			
D209	8-719-987-63	DIODE	1N4148M			
D210	8-719-987-63	DIODE	1N4148M			
D211	8-719-987-63	DIODE	1N4148M			
D212	8-719-987-63	DIODE	1N4148M			
D213	8-719-933-33	DIODE	HZS6A1L			
D214	8-719-933-33	DIODE	HZS6A1L			
		< FUSE >				
⚠F1	1-532-259-00	FUSE, TIME LAG (T1.6A) (AEP, UK, IT, G)				
⚠F1	1-532-286-00	FUSE (2.5A, 250V) (SP, JE)				
		< FUSE HOLDER >				
FH1	1-533-293-11	FUSE HOLDER				
FH2	1-533-293-11	FUSE HOLDER				

Ref. No.	Part No.	Description				Remark
		< IC >				
IC101	8-759-982-03	IC	RC5532DD			
IC102	8-759-051-65	IC	TC9214P			
IC103	8-759-710-59	IC	NJM4580D-D			
IC104	8-759-710-59	IC	NJM4580D-D			
IC105	8-759-710-59	IC	NJM4580D-D			
IC152	8-759-051-65	IC	TC9214P			
IC201	8-759-231-53	IC	TA7805S			
IC202	8-759-962-08	IC	BA6208			
IC203	8-759-962-08	IC	BA6208			
		< JACK >				
J101	1-565-352-11	JACK, PIN 2P (PHONO)				
J102	1-766-262-11	JACK, PIN 4P (CD, TUNER)				
J103	1-565-320-61	JACK, PIN 6P (MD, TAPE)				
J104	1-565-320-61	JACK, PIN 6P (DAT/VIDEO, MD)				
J105	1-565-320-61	JACK, PIN 6P (ADAPTOR, OUTPUT (SPEAKERS))				
		< COIL >				
L201	1-410-509-11	MICRO INDUCTOR 10uH				
L202	1-410-509-11	MICRO INDUCTOR 10uH				
		< TERMINAL >				
PP101	1-537-770-21	TERMINAL BOARD, GROUND				
		< TRANSISTOR >				
Q101	8-729-141-26	TRANSISTOR	2SC3622A-LK			
Q151	8-729-141-26	TRANSISTOR	2SC3622A-LK			
Q201	8-729-140-96	TRANSISTOR	2SD774-34			
Q202	8-729-140-97	TRANSISTOR	2SB734-34			
Q203	8-729-620-05	TRANSISTOR	2SC2603-EF			
Q204	8-729-119-76	TRANSISTOR	2SA1175-HFE			
Q205	8-729-620-05	TRANSISTOR	2SC2603-EF			
Q206	8-729-620-05	TRANSISTOR	2SC2603-EF			
Q207	8-729-620-05	TRANSISTOR	2SC2603-EF			
Q208	8-729-620-05	TRANSISTOR	2SC2603-EF			
		< RESISTOR >				
R101	1-249-210-11	CARBON	1K	5%	1/3W	
R102	1-249-496-11	CARBON	100K	5%	1/3W	
R103	1-214-937-00	METAL	1M	1%	1/2W	
R104	1-214-937-00	METAL	1M	1%	1/2W	
R105	1-249-210-11	CARBON	1K	5%	1/3W	
R106	1-214-937-00	METAL	1M	1%	1/2W	
R107	1-249-210-11	CARBON	1K	5%	1/3W	
R108	1-214-937-00	METAL	1M	1%	1/2W	
R109	1-249-210-11	CARBON	1K	5%	1/3W	
R110	1-214-937-00	METAL	1M	1%	1/2W	
R111	1-249-210-11	CARBON	1K	5%	1/3W	
R112	1-214-937-00	METAL	1M	1%	1/2W	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

MAIN

Ref. No.	Part No.	Description				Remark
R114	1-249-496-11	CARBON	100K	5%	1/3W	
R115	1-249-208-31	CARBON	820	5%	1/3W	
R116	1-214-931-00	METAL	560K	1%	1/2W	
R117	1-249-492-11	CARBON	47K	5%	1/3W	
R118	1-249-496-11	CARBON	100K	5%	1/3W	
R119	1-249-186-11	CARBON	100	5%	1/3W	
R120	1-249-496-11	CARBON	100K	5%	1/3W	
R121	1-249-210-11	CARBON	1K	5%	1/3W	
R122	1-249-210-11	CARBON	1K	5%	1/3W	
R123	1-247-759-11	CARBON	3.9K	5%	1/3W	
R124	1-249-218-11	CARBON	2.2K	5%	1/3W	
R125	1-249-496-11	CARBON	100K	5%	1/3W	
R126	1-249-210-31	CARBON	1K	5%	1/3W	
R127	1-247-762-21	CARBON	6.8K	5%	1/2W	
R128	1-249-496-11	CARBON	100K	5%	1/3W	
R129	1-249-496-11	CARBON	100K	5%	1/3W	
R130	1-249-210-31	CARBON	1K	5%	1/3W	
R131	1-249-210-31	CARBON	1K	5%	1/3W	(AEP, UK, IT, G)
R131	1-259-171-31	CARBON	1.5K	5%	1/4W	(SP, JE)
R132	1-249-234-31	CARBON	10K	5%	1/3W	
R133	1-249-496-11	CARBON	100K	5%	1/3W	
R134	1-247-735-11	CARBON	47	5%	1/2W	F
R135	1-247-735-11	CARBON	47	5%	1/2W	F
R136	1-249-186-11	CARBON	100	5%	1/3W	
R151	1-249-210-11	CARBON	1K	5%	1/3W	
R152	1-249-496-11	CARBON	100K	5%	1/3W	
R153	1-214-937-00	METAL	1M	1%	1/2W	
R154	1-214-937-00	METAL	1M	1%	1/2W	
R155	1-249-210-11	CARBON	1K	5%	1/3W	
R156	1-214-937-00	METAL	1M	1%	1/2W	
R157	1-249-210-11	CARBON	1K	5%	1/3W	
R158	1-214-937-00	METAL	1M	1%	1/2W	
R159	1-249-210-11	CARBON	1K	5%	1/3W	
R160	1-214-937-00	METAL	1M	1%	1/2W	
R161	1-249-210-11	CARBON	1K	5%	1/3W	
R162	1-214-937-00	METAL	1M	1%	1/2W	
R164	1-249-496-11	CARBON	100K	5%	1/3W	
R165	1-249-208-31	CARBON	820	5%	1/3W	
R166	1-214-931-00	METAL	560K	1%	1/2W	
R167	1-249-492-11	CARBON	47K	5%	1/3W	
R168	1-249-496-11	CARBON	100K	5%	1/3W	
R169	1-249-186-11	CARBON	100	5%	1/3W	
R170	1-249-496-11	CARBON	100K	5%	1/3W	
R171	1-249-210-11	CARBON	1K	5%	1/3W	
R172	1-249-210-11	CARBON	1K	5%	1/3W	
R173	1-247-759-11	CARBON	3.9K	5%	1/3W	
R174	1-249-218-11	CARBON	2.2K	5%	1/3W	
R175	1-249-496-11	CARBON	100K	5%	1/3W	
R176	1-249-210-31	CARBON	1K	5%	1/3W	

Ref. No.	Part No.	Description				Remark
R177	1-247-762-11	CARBON	6.8K	5%	1/2W	
R178	1-249-496-11	CARBON	100K	5%	1/3W	
R179	1-249-496-11	CARBON	100K	5%	1/3W	
R180	1-249-210-31	CARBON	1K	5%	1/3W	
R181	1-249-210-31	CARBON	1K	5%	1/3W	(AEP, UK, IT, G)
R181	1-259-171-31	CARBON	1.5K	5%	1/4W	(SP, JE)
R182	1-249-234-31	CARBON	10K	5%	1/3W	
R183	1-249-496-11	CARBON	100K	5%	1/3W	
R184	1-247-735-11	CARBON	47	5%	1/2W	F
R185	1-247-735-11	CARBON	47	5%	1/2W	F
R186	1-249-186-11	CARBON	100	5%	1/3W	
R201	1-249-218-11	CARBON	2.2K	5%	1/3W	
R202	1-249-218-11	CARBON	2.2K	5%	1/3W	
R203	1-249-218-11	CARBON	2.2K	5%	1/3W	
R204	1-249-218-11	CARBON	2.2K	5%	1/3W	
R205	1-249-218-11	CARBON	2.2K	5%	1/3W	
R206	1-247-761-11	CARBON	5.6K	5%	1/3W	
R207	1-249-226-11	CARBON	4.7K	5%	1/3W	
R208	1-249-486-11	CARBON	12K	5%	1/3W	
R209	1-249-234-11	CARBON	10K	5%	1/3W	
R210	1-249-433-11	CARBON	22K	5%	1/4W	
R211	1-249-437-11	CARBON	47K	5%	1/4W	
R212	1-249-437-11	CARBON	47K	5%	1/4W	
R213	1-249-437-11	CARBON	47K	5%	1/4W	
R214	1-249-433-11	CARBON	22K	5%	1/4W	
R215	1-249-433-11	CARBON	22K	5%	1/4W	
R216	1-249-433-11	CARBON	22K	5%	1/4W	
R217	1-249-433-11	CARBON	22K	5%	1/4W	
R218	1-249-433-11	CARBON	22K	5%	1/4W	
R219	1-249-417-11	CARBON	1K	5%	1/4W	F
R220	1-249-417-11	CARBON	1K	5%	1/4W	F
R221	1-249-436-11	CARBON	39K	5%	1/4W	
R222	1-249-432-11	CARBON	18K	5%	1/4W	
R223	1-249-429-11	CARBON	10K	5%	1/4W	
R224	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R225	1-249-420-11	CARBON	1.8K	5%	1/4W	F
R227	1-249-417-11	CARBON	1K	5%	1/4W	F
R228	1-249-417-11	CARBON	1K	5%	1/4W	F
R229	1-249-417-11	CARBON	1K	5%	1/4W	F

< VARIABLE RESISTOR >

RV101	1-241-908-11	RES, VAR, CARBON 120K/120K (ATTENUATOR)

< RELAY >

⚠RY1	1-515-849-11	RELAY
RY101	1-515-803-11	RELAY
RY102	1-515-803-11	RELAY

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description			Remark
		< SWITCH >			
S101	1-692-142-11	SWITCH, ROTARY (WITH MOTOR)			
		< TRANSFORMER >			
⚠T1	1-426-968-11	TRANSFORMER, POWER			
**********					
*	A-4371-622-A	PANEL BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C301	1-125-623-11	DOUBLE LAYERS	0.22F		5.5V
C302	1-126-157-11	ELECT	10uF	20%	16V
C303	1-124-994-11	ELECT	100uF	20%	10V
C304	1-162-306-11	CERAMIC	0.01uF	30%	16V
C305	1-164-159-11	CERAMIC	0.1uF		50V
C306	1-164-159-11	CERAMIC	0.1uF		50V
C307	1-126-059-11	ELECT	10uF	20%	50V
C308	1-161-494-00	CERAMIC	0.022uF		25V
C309	1-161-494-00	CERAMIC	0.022uF		25V
C312	1-124-994-11	ELECT	100uF	20%	10V
C402	1-136-168-00	FILM	0.18uF	5%	50V
C403	1-136-175-00	FILM	0.68uF	5%	50V
C404	1-136-158-00	FILM	0.027uF	5%	50V
C405	1-136-164-00	FILM	0.082uF	5%	50V
C452	1-136-168-00	FILM	0.18uF	5%	50V
C453	1-136-175-00	FILM	0.68uF	5%	50V
C454	1-136-158-00	FILM	0.027uF	5%	50V
C455	1-136-164-00	FILM	0.082uF	5%	50V
		< CONNECTOR >			
* CN301	1-568-830-11	SOCKET, CONNECTOR 11P			
* CN302	1-568-826-11	SOCKET, CONNECTOR 7P			
CN304	1-564-517-11	PLUG, CONNECTOR 2P			
* CN401	1-564-509-11	PLUG, CONNECTOR 6P			
		< DIODE >			
D301	8-719-200-82	DIODE	11ES2		
D302	8-719-200-82	DIODE	11ES2		
D304	8-719-987-63	DIODE	1N4148M		
D305	8-719-987-63	DIODE	1N4148M		
D306	8-719-987-63	DIODE	1N4148M		
D307	8-719-313-43	DIODE	SEL2210S-TH10 (SOURCE DIRECT)		
D308	8-719-313-43	DIODE	SEL2210S-TH10 (DAT/VIDEO)		
D309	8-719-313-43	DIODE	SEL2210S-TH10 (MD)		
D310	8-719-313-43	DIODE	SEL2210S-TH10 (TAPE)		
D311	8-719-313-43	DIODE	SEL2210S-TH10 (CD)		
D312	8-719-313-43	DIODE	SEL2210S-TH10 (TUNER)		
D313	8-719-313-43	DIODE	SEL2210S-TH10 (PHONO)		

Ref. No.	Part No.	Description			Remark
D314	8-719-987-63	DIODE	1N4148M		
D319	8-719-987-63	DIODE	1N4148M		
		< IC >			
IC301	8-759-284-90	IC	TMP87C846N-4109		
IC302	8-759-635-63	IC	M51943BSL		
		< TRANSISTOR >			
Q301	8-729-900-63	TRANSISTOR	DTA124ES		
Q302	8-729-620-05	TRANSISTOR	2SC2603-EF		
Q303	8-729-900-61	TRANSISTOR	DTA114ES		
Q304	8-729-900-61	TRANSISTOR	DTA114ES		
Q305	8-729-900-36	TRANSISTOR	DTC124ES		
		< RESISTOR >			
R301	1-249-429-11	CARBON	10K	5% 1/4W	
R302	1-249-433-11	CARBON	22K	5% 1/4W	
R303	1-249-429-11	CARBON	10K	5% 1/4W	
R304	1-249-393-11	CARBON	10	5% 1/4W	F
R305	1-249-429-11	CARBON	10K	5% 1/4W	
R306	1-249-429-11	CARBON	10K	5% 1/4W	
R307	1-249-417-11	CARBON	1K	5% 1/4W	F
R308	1-249-426-11	CARBON	5.6K	5% 1/4W	
R309	1-249-433-11	CARBON	22K	5% 1/4W	
R310	1-249-431-11	CARBON	15K	5% 1/4W	
R311	1-249-427-11	CARBON	6.8K	5% 1/4W	F
R312	1-249-417-11	CARBON	1K	5% 1/4W	F
R313	1-249-423-11	CARBON	3.3K	5% 1/4W	F
R314	1-249-423-11	CARBON	3.3K	5% 1/4W	F
R315	1-249-417-11	CARBON	1K	5% 1/4W	F
R316	1-249-425-11	CARBON	4.7K	5% 1/4W	F
R319	1-249-417-11	CARBON	1K	5% 1/4W	F
R320	1-249-417-11	CARBON	1K	5% 1/4W	F
R321	1-249-417-11	CARBON	1K	5% 1/4W	F
R322	1-249-417-11	CARBON	1K	5% 1/4W	F
R323	1-249-429-11	CARBON	10K	5% 1/4W	
R324	1-249-417-11	CARBON	1K	5% 1/4W	F
R325	1-249-417-11	CARBON	1K	5% 1/4W	F
R326	1-249-417-11	CARBON	1K	5% 1/4W	F
R327	1-249-417-11	CARBON	1K	5% 1/4W	F
R328	1-249-414-11	CARBON	560	5% 1/4W	F
R329	1-249-414-11	CARBON	560	5% 1/4W	F
R330	1-249-414-11	CARBON	560	5% 1/4W	F
R333	1-249-433-11	CARBON	22K	5% 1/4W	
R401	1-259-428-11	CARBON	1K	5% 1/6W	
R402	1-259-438-11	CARBON	2.7K	5% 1/6W	
R403	1-259-428-11	CARBON	1K	5% 1/6W	
R404	1-259-452-11	CARBON	10K	5% 1/6W	
R407	1-259-460-11	CARBON	22K	5% 1/6W	
R408	1-259-500-11	CARBON	1M	5% 1/6W	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

PANEL | POWER SWITCH | VOLUME LED

Ref. No.	Part No.	Description				Remark
R409	1-259-418-11	CARBON	390	5%	1/6W	
R451	1-259-428-11	CARBON	1K	5%	1/6W	
R452	1-259-438-11	CARBON	2.7K	5%	1/6W	
R453	1-259-428-11	CARBON	1K	5%	1/6W	
R454	1-259-452-11	CARBON	10K	5%	1/6W	
R457	1-259-460-11	CARBON	22K	5%	1/6W	
R458	1-259-500-11	CARBON	1M	5%	1/6W	
R459	1-259-418-11	CARBON	390	5%	1/6W	
		< VARIABLE RESISTOR >				
RV401	1-241-972-11	RES, VAR, CARBON 10K/10K (BASS)				
RV402	1-241-974-11	RES, VAR, CARBON 10K/10K (TREBLE)				
RV403	1-241-973-11	RES, VAR, CARBON 100K/100K (BALANCE)				
		< SWITCH >				
S301	1-554-303-21	SWITCH, TACTILE (SOURCE DIRECT)				
S302	1-692-974-11	SWITCH, ROTARY (FUNCTION)				
		< VIBRATOR >				
X301	1-579-125-11	VIBRATOR, CERAMIC (8MHz)				
**********						
*	1-653-562-11	POWER SWITCH BOARD				
		**********				
		< CAPACITOR >				
C310	1-126-157-11	ELECT	10uF	20%	16V	
C311	1-162-306-11	CERAMIC	0.01uF	30%	16V	
		< DIODE >				
D315	8-719-987-63	DIODE 1N4148M				
D316	8-719-313-40	DIODE SEL1516W (ON/STANDBY)				
		< IC >				
IC303	8-749-922-36	IC GP1U50XB				
		< RESISTOR >				
R334	1-249-414-11	CARBON	560	5%	1/4W	F
R335	1-249-410-11	CARBON	270	5%	1/4W	F
		< SWITCH >				
S303	1-554-118-00	SWITCH, PUSH (1 KEY) (POWER)				
**********						

Ref. No.	Part No.	Description	Remark
*	1-653-564-11	VOLUME LED BOARD	
		**********	
		< DIODE >	
D317	8-719-301-37	DIODE SEL2210S-CD (ATTENUATOR)	
**********			
		MISCELLANEOUS	
		**********	
⚠CNP1	1-575-651-21	CORD, POWER (EXCEPT UK)	
⚠CNP1	1-696-571-11	CORD, POWER (UK)	
⚠CNJ1	1-526-794-11	OUTLET, AC	
⚠CNJ2	1-526-794-11	OUTLET, AC	
⚠CNJ3	1-526-794-11	OUTLET, AC	
CNL501	1-690-880-31	LEAD (WITH CONNECTOR)	
CN901	1-769-095-11	CORD (WITH CONNECTOR) (AU BUS)	
⚠F1	1-532-259-00	FUSE, TIME LAG (T1.6A) (AEP, UK, IT, G)	
⚠F1	1-532-286-00	FUSE (2.5A, 250V) (SP, JE)	
FFC1	1-575-904-31	WIRE, FLAT TYPE (7 CORE)	
FFC2	1-590-575-11	WIRE, FLAT TYPE (11 CORE)	
JP101	1-535-706-11	PLUG, JUMPER	
JP151	1-535-706-11	PLUG, JUMPER	
⚠VS1	1-570-046-21	SWITCH, VOLTAGE CHANGE (VOLTAGE SELECTOR) (SP, JE)	
**********			
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-467-796-11	REMOTE COMMANDER (RM-S1)	
	1-590-219-11	CORD (WITH CONNECTOR) (AU BUS connecting cable)	
	3-363-099-21	SCREW (CASE) (AEP, IT, G)	
	3-759-589-11	MANUAL, INSTRUCTION (AEP, IT) (ENGLISH, FRENCH, SPANISH, PORTUGUESE)	
	3-759-589-41	MANUAL, INSTRUCTION (AEP, IT, G) (GERMAN, DUTCH, SWEDISH, ITALIAN)	
	3-759-589-51	MANUAL, INSTRUCTION (JE, SP) (ENGLISH, FRENCH, SPANISH, CHINESE)	
	3-759-589-61	MANUAL, INSTRUCTION (UK) (ENGLISH)	
	4-955-381-01	CASE, BATTERY (for RM-S1)	
*	4-968-991-01	CUSHION (AEP, IT, G)	
*	4-968-992-51	INDIVIDUAL CARTON (AEP, IT, G)	
*	4-970-587-21	PLATE (PIN JACK 2P) (SA)	
*	4-970-588-11	PLATE (PIN JACK 4P) (MD)	
*	4-970-607-01	PLATE (PIN JACK 8P) (ST, TC, CD)	
**********			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
		********** HARDWARE LIST **********	
#1	7-685-645-79	SCREW +BVTP 3X6 TYPE2 N-S	
#2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	

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Home A&V Products Div.

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